

## ABSTRACT

A laser-diode drive circuit is provided with a filter circuit for noise elimination. A measure is taken to eliminate a fear that a leading edge of a signal waveform is so impaired due to a time constant of the filter circuit that a receiving side of optical communications may not be able to accurately detect a level 0 or 1 of the signal at rise time. For this purpose, a laser-diode drive circuit of the invention includes a control-signal generating circuit for generating a control signal over a predetermined time period immediately after the rise of an input signal waveform or an output current signal waveform, and a time-constant reduction circuit active to reduce the time constant of the filter circuit during the receipt of the control signal.